

## **AMENDMENTS**

### **In the Specification:**

Please insert the attached "Sequence Listing" as separately numbered pages 1-10 after the abstract, replacing all previously provided sequence listings.

**Please replace the paragraph beginning on page 3, line 14 with the following rewritten paragraph:**

Figures 6A to 6C. Schematic representation of the constructs used. (6A) An outline of the coding region of tandem FP fused with target protein. Darker rectangles represent FPs, while the lighter rectangle represents target protein. Short lines correspond to linkers between the first FP, second FP and the target protein. Amino acid sequences of the linkers are shown below: **RSPG (SEQ ID NO: 14) and RTRA (SEQ ID NO: 15)**. (6B) Possible behavior of dimeric FP in fused constructs. Darker circles represent folded FP molecules, while lighter squares indicate folded target protein molecules (other graphical symbols as in 6A). In the case of singleton tags, intermolecular FP dimerization results in forced proximity of two target protein molecules. In contrast, FP in tandem forms an intramolecular dimer and is thus considered a monomeric tag. (6C) Possible behavior of tetrameric FP in fusion constructs. Graphical symbols as in A and B. Intermolecular tetramerization of the singleton tag brings four target molecules into close proximity. In contrast, for tandem tag, each "tetramer" (dimer of dimers) contains only two target proteins.

**Please replace the paragraph beginning on page 39, line 27 with the following rewritten paragraph:**

Initially, we tested the HcRed2A-tandem construct in a prokaryotic expression system. Several amino acid linkers of different lengths and compositions between monomers were examined. The best results in terms of rate and completeness of

protein maturation and fluorescence brightness were obtained with a four amino acid linker, RSPG (**SEQ ID NO: 14**), which was subsequently used in all further constructs. Tandem HcRed2A displayed the same spectral characteristics as the parent protein. Moreover, *E. coli* colonies expressing HcRed2A-tandem possessed brighter fluorescence and more rich purple coloration in comparison to colonies with singleton HcRed2A. The above results indicate that protein dimerization occurs more effectively between closely linked rather than free monomers. Gel-filtration chromatography revealed similar mobility for HcRed2A and HcRed2A-tandem. Both proteins appeared to be "dimers" as evident from the similar single peaks observed between the tetrameric DsRed and monomeric EGFP peaks (data not shown). Thus, linked HcRed2A forms intramolecular but not intermolecular dimers, and may therefore be utilized as a monomeric tag for fusion partners.